REMARKS

This Application has been carefully reviewed in light of the Final Office Action mailed January 11, 2005 ("Office Action"). At the time of the Office Action, Claims 1-20 were pending in the application. In the Office Action, the Examiner rejects Claims 1-20. Applicants amend Claims 1, 2, 5-8, 11-13, and 16-18. Applicants do not admit that these amendments were necessary as a result of any cited art.

Section 103 Rejections

The Examiner rejects Claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,727,214 issued to Allen ("*Allen*") in view of Pai, "Flash: An efficient and portable Web server" ("*Pai*"). Applicants respectfully request reconsideration and allowance of Claims 1-20.

Amended Claim 1 recites:

> A system, comprising:
> a finite state machine operating within a portable thread environment wherein a plurality of threads communicate with each other while cooperatively completing a task; and
> a plurality of threads operable to cooperatively complete the task and configured to pass event information associated with the task in PTE messages to the finite state machine, wherein the finite state machine changes a state associated with the task based on the event information.

Allen and *Pai*, both alone and in combination fail to disclose, teach, or suggest, every element of amended Claim 1 for at least several reasons. First, the proposed *Allen-Pai* combination fails to disclose "a plurality of threads operable to cooperatively complete the task." *Allen* discloses, in general, "an event dispatching subsystem and method for pre-processing event messages[.]" Col. 3, ll. 45-47. The Examiner asserts that the "software object" disclosed by *Allen* represents a "state machine." *Office Action*, p. 2. To whatever extent this is true, Applicants respectfully note that the software object of *Allen* "is a single threaded object, meaning that *it can handle only one thread of execution at a time*." Col. 8, ll. 4-5, emphasis added. As a result, *Allen* fails to disclose "a plurality of threads operable to cooperatively complete the task" as recited by amended Claim 1.

Similarly, *Pai* fails to disclose "a plurality of threads operable to cooperatively complete the task." Instead, in the system of *Pai*, "*[e]ach thread performs all the steps* associated with one HTTP request before accepting a new request, similar to the MP model's

use of a process." § 3.2, ¶ 1. As a result, the threads of *Pai* also do not "cooperatively complete [a] task," and *Pai* thus fails to disclose "a plurality of threads operable to cooperatively complete the task" as recited by amended Claim 1.

Second, the proposed *Allen-Pai* combination fails to disclose "a state associated with the task." Allen states merely that "the present invention solves the problem of generating a program that implements complicated protocols by providing a model or framework that makes it relatively straight-forward to define the actions to be taken from all possible combinations of internal states and incoming messages." Col. 1, ll. 43-46. Thus, to the extent the state maintained by the system of *Allen* is associated with anything it is associated with "complicated protocols" and not "a task." Thus, *Allen* does not disclose "a plurality of threads . . . configured to pass event information associated with the task in PTE messages to the finite state machine" or a finite state machine that "changes a state associated with the task based on the event information" as recited by amended Claim 1.

Similarly, *Pai* also fails to disclose "a state associated with the task." The cited portion of *Allen* discloses only that "[t]he use of a single shared address space lends itself easily to optimizations that relay on shared state." § 3.2, ¶ 3. The cited portion of *Pai* does not however disclose that the shared state is "a state associated with the task." Thus, *Pai* also does not disclose "a plurality of threads . . . configured to pass event information associated with the task in PTE messages to the finite state machine" or a finite state machine that "changes a state associated with the task based on the event information" as recited by amended Claim 1. As a result, the proposed *Allen-Pai* combination fails to disclose, teach, or suggest every element of amended Claim 1 for at least these reasons.

Furthermore, the proposed *Allen-Pai* combination is improper for at least several reasons. First, the proposed *Allen-Pai* combination changes the principle of operation of both the *Allen* and *Pai* references. *Allen* clearly states that "the software object to which the announced event is sent is a single threaded object, *meaning that it can handle only one thread of execution at a time.*" Col. 8, ll. 3-5. By contrast, *Pai* discloses a multi-threaded environment in which "[m]ulti-threaded (MT) servers . . . employ multiple independent threads of control operating within a single shared address space. § 3.2, ¶ 1. Furthermore, as the caption to Figure 3, indicates "the MT model uses a single address space with multiple *concurrent* threads of execution." Figure 3, caption. Thus, combining the serial thread-execution of *Allen* with the parallel thread-execution of *Pai* changes the principle of

operation of both. As the M.P.E.P. states, if a "proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." MPEP §2143.01. Consequently, the proposed modification is improper.

Second, Applicants respectfully note that, to establish a prima facie case of obviousness, the Examiner must identify within the references some suggestion or motivation to combine the references. M.P.E.P. § 2143. Applicants respectfully assert that the Examiner provides no such suggestion or motivation. With respect to the proposed combination, the Examiner states only that:

> It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Allen and Pai because portable thread environment will improve the performance of Allen's system by combining the high performance of single-process event-driven servers on cached workloads with the performance of multi-process and multi-threaded servers on disk-bound workloads (abstract).
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> *Office Action*, p. 3.

Applicants respectfully note, however, that the Examiner has merely extracted this alleged motivation from *Pai*. The alleged motivation is identified by *Pai* as a benefit of *Pai* alone. As *Pai* indicates "*[t]he Flash Web server* combines the high performance of a single-process event-driven servers on cached workloads with the performance of multi-process and multi-threaded servers on disk-bound workloads." Abstract, ¶ 1, emphasis added. Thus, the benefits noted by the Examiner represent benefits of the Flash Web server operating alone. As a result, the benefits noted by the Examiner would, if anything, provide motivation for *not* combining *Pai* with other references, as *Pai* independently provides these benefits. Consequently, the Examiner fails to establish a *prima facie* case of obviousness and the proposed *Allen-Pai* combination is improper.

Therefore, *Allen* and *Pai,* both alone and in combination, fail to disclose, teach, or suggest every element of amended Claim 1. Additionally, the proposed *Allen-Pai* combination is improper. Claim 1 is thus allowable for at least this reason. Applicants respectfully request reconsideration and allowance of Claim 1 and its dependents.

Although of differing scope from Claim 1 and from one another, Claims 6, 11, and 16 include elements that, for reasons substantially similar to those discussed above with respect to Claim 1, are not disclosed, taught, or suggested by the cited references. Thus, Claims 6,

11, and 16 are allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claims 6, 11, and 16, and their respective dependents.

CONCLUSION

Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact Samir A. Bhavsar, Attorney for Applicants, at the Examiner's convenience at (214) 953-6581.

Although no fees are believed due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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Date: March 10, 2005

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